MAY 1 6 2005

Substitute for form 100548

Sheet 1

PTO/SB/08A (04-03)
Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE under the Programment of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

_ot_1

Complete if Known					
Application Number	10/621,027				
Filing Date	July 16, 2003				
First Named Inventor	Nai-Kong Cheung				
Art Unit	1623				
Examiner Name	Jason H. Johnsen				
Attorney Docket Number	639-B-PCT-US				

U. S. PATENT DOCUMENTS Examiner Name of Patentee or **Document Number Publication Date** Pages, Columns, Lines, Where Initials* MM-DD-YYYY Applicant of Cited Document Relevant Passages or Relevant Number-Kind Code² (# known) Figures Appear US- 2004/0248772 6 12-09-2004 Akikuni Yagita ESO us- 2004/0266726 Eso 7 12-30-2004 Akikuni Yagita Eso us- 4,761,402 8 08-02-1988 Williams et al. ^{US-} 4,818,752 04-04-1989 Fsø Williams et al. 9 US-UŞ-US IIS-US-US-US-US-ับร-US-HS. US-US-US-US

		FORE	IGN PATENT DOCL	MENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
		Country Code ³ "Number * "Kind Code ⁸ (If known)	MM-DD-YYYY		Or Relevant Figures Appear	7
ESA	10	WO 98/39013	09-11-1998	Peregrine Pharmaceutical, Inc. et al.		
				·		L
					· · · · · · · · · · · · · · · · · · ·	r

		الم من	<u>.</u> λ		
Examiner	010	/(N !/ _	/1 // · · · · · · · · · · · · · · · · ·	Date	1) hall
	ا () نہ سیخت	$(X \mid X \land A)$	111		1 1 / 1914 / 25 /
Signature	8840. X		W \ ,	Considered	12/19/06
		S CHA	V 1 /		
TO VALUE IN INC.	1-141-1-17				

*EXAMINER: Initial if reference considered, whether or not citation of in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the Indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

PTO/SB/08B (04-03) Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form		o required to respond to a consener	required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known			
Substitute for form ************************************				Application Number	10/621,027	
INFO	PRMATION	DIS	CLOSURE	Filing Date	July 16, 2003	
STATEMENT BY APPLICANT				First Named Inventor	Nai-Kong Cheung	
				Art Unit	1623	
(Use as many sheets as necessary)				Examiner Name	Jason H. Johnsen	
Sheet	1	of	1	Attorney Docket Number	639-B-PCT-US	

-		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
Eso	1	Search Report prepared by the Norwegian Patent Office. dated May 4, 2005	
Eso Eso Eso	2	Hong et al., "Mechanism by Which Orally Administered ß-1,3-Glucans Enhance the Tumoricidal Activity of Antitumor Monoclonal Antibodies in Murine Tumor Models", Journal of Immunology, Vol. 173, No. 5, Pages 797-806 (2004)	
Eso	3	Ostroff et al., "Immune-Enhancing Effects of Oral Yeast ß 1,3/1,6 Glucans", American Chemical Society, Vol. 225, No. 1-2, pp. AGFD 8 (2003)	
£50	4	Allendorf et al., "Macrophages shuttle orally administered ß-glucan to potentiate the CR3-dependent tumoricidal effects of monoclonal antibodies in mouse tumor models", FASEB Journal, Vol. 17, No. 7, Page C128 (2004)	li li
Eso	5 .	Papila et al., * The Effect of oral ß-glucan in addition to systemic chemotherapy on the leukocyte values with oral mucositis in the patients with head-neck tumors*, International Review of Allergology & Clinical Immunology, Vol 10, No. 2, Pages 59-61 (2004)	
	·		

Examiner Signature	Eri	s. Older	Date Considered	12/19/06

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not

[&]quot;EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of Information Is required by 37 CFR 1.98. The Information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

PTO/SB/08B (04-03)

Approved for use through 04/30/2003. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449/PTO		Complete if Known
:	Application Number	10/621,027
INFORMATION DISCLOSURE	Filing Date	July 16, 2003
STATEMENT BY APPLICANT	First Named Inventor	Nai-Kong Cheung
(Use as many sheets as necessary)	Art Unit	1623
(USB as many shoets as necessary)	Examiner Name	Jason H. Johnson
Sheet 2 of 2	Attorney Docket Number	639-B-PCT-US

Examiner	Cite	NON PATENT LITERATURE DOCUMENTS	r					
nitials*	No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.						
Eso	11	Kidd, P., "The Use of Mushroom Glucans and Proteopglycans in Cancer Treatment", Alternative Medicine Review, Vol. 5, No. 1, Pages 4-27 (2000)						
	12	Hanaue, H. et al, "Effects of Oral Lentinan on T-Cell Subsets in Periphel Venous Blood", Clinical Therapuetics, Vol. 5 (1989)						
	13	Suzuki, M. et al, "Antitumor and Immunological Activity of Lentinan in Comparison with LPS", International Society of Pharmacology, Ltd., Pages 463-468 (1994)						
	14	Cheung, N.; Modak, S.; "Oral (1•3), (1•4)-B-D-Glucan Synergizes with Antiganglioside GD2 Monoclonal Antibody 3F8 in the Therapy of Neuroblastoma", Clinical Cancer Research, Vol. 8, Pages 1217-1223 (2002)						
	15	Chihara, G. et al., "Antitumor and Metastasis-Inhibitory Activities of Lentinan as an Immunomodulator: An Overview", Cancer Detection and Prevention Supplement, Vol. 1, Pages 423-443 (1987)						
1	16	Mayer, L.; Shao, L., "Therapeutic Potential of Oral Tolerance", Nature Reviews Immunology, Vol. 4, Pages 407-419 (2004)						

Examiner ()	$\Delta I \Delta \Delta$	Date	12 /10/00
Signature &	$(\mathcal{Y}\mathcal{Y})/$	Considered	11/19/116.
15 YAMMUED A 31 1/4	<u> </u>	Considered	10717700

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The Information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete his form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

01PE MAR 2 9 2005 C

PTO/SB/08B (04-03)

Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

	te for form 1449/PT	FROM	CLOT 1993, NO PERSONS AI	e required to respond to a collection	of information unless it contains a valid OMB control Complete if Known	oi number.
Cubstille		•		Application Number	10/621,027	
INF	ORMATIO	N DIS	CLOSURE	Filing Date	July 16, 2003	
STATEMENT BY APPLICANT				First Named Inventor	Nai-Kong Cheung	
	(Use as many s	haata ad s		Art Unit	1623	
	(Use as many s			Examiner Name	Jason H. Johnsen	
Sheet	1	of	1 .	Attorney Docket Number	639-B-PCT-US	

		NON PATENT LITERATURE DOCUMENTS		
Examiner Initials*	Cite No. Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
Esa	1	PCT International Search Report for Sloan-Kettering Institute for Cancer Research, Int'l Application No. PCT/US04/23099, Filed July 16, 2004, Dated February 28, 2005		
	2	Babineau, T. et al., "Randomized Phase I/II Trial of a Macrophage-Specific Immunomodulator (PGG-Glucan) in High-Risk Surgical Patients", Annals of Surgery, Vol. 220, No. 5, Pages 601-609 (1994)		
	3	Babineau, T. et al., "A Phase II Multicenter, Double-blind, Randomized, Placebo-Controlled Study of Three Dosages of an Immunomodulator (PGG-Glucan) in High Risk Surgical Patients", Arch Surg, Vol. 129, Pages 1204-1210 (1994)		
	4	Arturson, G.; Wallenius, G., "The Renal Clearance of Dextran of Different Molecular Sizes in Normal Humans", Scandinaz J Clin & Lab Investigation, Vol. 1, Pages 81-86 (1964)		
	5	Dellinger, E., et al., "Effect of PGG-glucan on the Rate of Serious Postoperative Infection or Death Observed After High-Risk Gastrointestinal Operations", Arch Surg, Vol 134, Pages 977-983 (1999)		
	6	Arturson, G. et al., "Intravascular Persistence and Renal Clearance of Dextran of Different Molecular Sizes in Normal Children", Arch Dis Childh., Vol. 41, Pages 168-172 (1966)		
	7	Sortwell, R. et al., "Chronic Intravenous Administration of Lentinan to the Rhesus Monkey", Toxicology Letters, Vol. 9, Pages 81-85 (1981)		
	8	Shimazu, H. et al., "Intravenous chronic toxicity of lentinan in rats: 6-month treatment and 3-month recovery". National Library of Medicine (PubMed), J Toxicol Sci, Pages 33-57 (1980)		
	9	Mehvar, R., "Recent Trends in the Use of Polysaccarides for Improved Delivery of Therapeutic Agents: Pharmacokientic and Pharmacodynamic Perspectives", Current Pharmaceutical Biotechnology, Vol. 4, Pages 283-302 (2003)		
V	10	Hanaue, H. et al., "Basic Studies on Oral Administration of Lentinan (I)", J. Jpn. Cancer Ther., Vol. 8, Pages 1566-1571 (1989)		

Examiner 6 0 0 0	Date	1 - 110 1 -	_
Signature C	Duite	1 1 2 1101 1 2 2	
Signature Signature	Considered	112/17/06	
15 14 1 14 1 14 1 14 1 14 1 14 1 14 1 1			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

ON P ET LE SE

Sheet 1

PTO/SB/08A (04-03) Approved for use through 04/30/2003, OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known					
Application Number	10/621,027				
Filing Date	July 16, 2003				
First Named Inventor	Nai-Kong Chueng				
Art Unit					
Examiner Name					
Attorney Docket Number	639-B-PCT-US				

				DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ^{2 (# known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Unes, Where Relevant Passages or Relevant Figures Appear
160	1	US- 005130127A		Hortyo et al	
<u>E50</u>	<u>'</u>	US-	-	Herlyn, et al.	
	<u> </u>				
		U\$-	•		
		US-	1		
		US-			
	<u> </u>	US-	- 	· · · · · · · · · · · · · · · · · · ·	
		US-			
-		US-			
		US-	1		
		US-			
		US-			
		US-			
		US-	· · · · · · · · · · · · · · · · · · ·		
		US-	1		
		US-			
		US-			
		US-			
		US-	1		
		US-	 		

		FORE	GN PATENT DOC	JMENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	П
		Country Code ³ "Number ⁴ "Kind Code ³ (# known)	MM-DD-YYYY		Or Relevant Figures Appear	T
ESO	2	WO 01/62283 A2	02/02/2000	Raa, et al.		
-						
					1	

Examiner Signature	Eric Qu	ELDON /	Date Considered	12/19/06

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the Indication of the year of the reign of the Emperor must precede the serial number of the patent document. Mind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.

Traisation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

PTO/S8/08B (04-03)
Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitu	Substitute for form 1449/PTO		Complete if Known			
				Application Number	10/621,027	
INF	ORMATION	DIS	CLOSURE	Filing Date	July 16, 2003	
STA	TEMENT E	BY A	PPLICANT	First Named Inventor	Nai-Kong CHEUNG	
	(11			Art Unit		
(Use as many sheets as necessary)				Examiner Name		
Sheet	2	of	2	Attorney Docket Number	639-B-PCT-US	

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
Eso	3	Ross, et al. Therapeutic intervention with complement and beta-glucan in cancer, Immunopharmacology 42(1999), 61-74	
Eso	4	Vetvicka, et al. Pilot Study: Orally-administered Yeast beta-(1,3)-glucan prophylactically protect against anthrax infection and cancer in mice. Journ Ameri Nutraceutical Assoc, Vol. 5:2, April 22, 2002	
Eso	5	Cheung, N.K. Orally administered beta-glucans enhance anti-tumor effects of monoclonal antibodies. Cancer Immunother. 2002 Nov; 51(10):557-64	
Eso	6	Suzuki, et al. Effect of orally administered beta-glucan on macrophage function in mice. Int. J. Immunopharmacology 12:6, 675-684, 1990	

Examiner	6.36	~ 00	21	,	Date	17/10/30
Signature	حمصاسع	S. W	401		Considered	(27/01/06

*EXAMINER: Initial if reference considered, whether or not cliation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the Individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.



PTO/SB/08A (04-03)

Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1965, 35 persons are required to respond to a octient on distinction unless it contains a valid of 1965 contain number.

Substitute for form 1449/PTO

Sheet 1

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known

Application Number 10/621,027

Filing Date July 16, 2003

First Named Inventor Nai-Kong Chueng

Art Unit Examiner Name

Attorney Docket Number 639-B-PCT-US

			U. S. PATENT D		
Examiner Initials*	Cite No.'	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevan
	<u></u>	Number-Kind Code ^{2 (d known)}			Figures Appear
		US-		•	
		US-			
· · · · · · · · · · · · · · · · · · ·		US-			
		.US-			
		US-			
-		US-			
		US-			

Examiner Cite	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	Γ
		Country Code ³ "Number ⁴ "Kind Code ⁸ (if known)	MM-DD-YYYY I	- Application of Greek about the state of Gree	Or Relevant Figures Appear	1
Eso	1	WO 00/15238	03/23/2000	Pavliak, et al.		Г
-1	2	EP 0194851	09/17/1986	Wistar Institute		Г
	3	JP 62252730	11/04/1987	Takeda Chem Ind Ltd		Г
V	4	JP 63307825	12/12/1988	Nippon Beet Sugar Mfg		Г
~						Γ
					<u> </u>	

Examiner Signature	Sig & OLD M	Date Considered	12/19/66

*EXAMINER: Initial if reference considered, whether or not chadon is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gog or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japenese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.

Trainstation is attached.
This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need essistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

PTO/SB/08A (04-03)

Approved for use through 04/30/2003. OMB 0851-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

Sheet 1

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known				
Application Number	10/621,027			
Filing Date	July 16, 2003			
First Named Inventor	Nai-Kong Chueng			
Art Unit				
Examiner Name				
Attorney Docket Number	639-B-PCT-US			

			U. S. PATENT	DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ^{2 (Florom)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	 	US-	 		
				·	<u> </u>
		US-			
	1	US-	i		
	1	US-			
		US-			
	1	US-	1		
		US-			
		US-			
		US-			···
		US-			
	†	US-			
		US-			
		US-			
		US-	1		-
	1	US-			

Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	Т
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)	MM-DD-YYYY		Or Relevant Figures Appear	T⁴
550	1	WO 2004/014320 A2	02/19/2004	Ostroff, et al.		
1	2	WO 2004/014320 A3	02/19/2004	Ostroff, et al.		
	3	WO 2004/021994 A2	03/18/2004	Ostroff, et al.		Г
$\overline{\Psi}$	4	WO 2004/021994 A3	03/18/2004	Ostroff, et al.		

Examiner			$\Omega / \Omega M$	Date	1/1/14/
Signature	00-		$V \cup L M \setminus \Lambda$	Considered	1 1 1 1/01/196
(8	1000	- XX .	(4044)	Considered	1 10 10 00

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspfo.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁵ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, cell 1-800-PTO-9199 (1-800-786-9199) and select option 2.

PTO/SB/08B (04-03)
Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Reperwork Reduction Act of 1995, no persons a "ADEMA" Substitute for form 1449/PTO	U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERC required to respond to a collection of Information unless it contains a valid OMB control number Complete if Known		
Gassilate to tolil 1444, 10	Application Number	10/621,027	
INFORMATION DISCLOSURE	Filing Date	July 16, 2003	
STATEMENT BY APPLICANT	First Named Inventor	Nai-Kong CHEUNG	
(Use as many sheets as necessary)	Art Unit		
(034 to many sheets as necessary)	Examiner Name		
Sheet 1 of 2	Attorney Docket Number	639-B-PCT-US	

		NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					
Eso	1	S. Tsukagoshi, Y. Hashimoto, G. Fujii, H. Kobayashi, K. Nomoto, and K. Orita, Krestin (PSK). Cancer Treat. Rev. 11:131-155, 1984.					
Ì	2	H. Nanba, H. and H. Kuroda, Antitumor mechanisms of orally administered shiitake fruit bodies. Chem. Pharm. Bull. (Tokyo) 35:2459-2464, 1987.					
	3	H. Nanba, H., K. Mori, T. Toyomasu, and H. Kuroda, Antitumor action of shiitake (Lentinus edodes) fruit bodies orally administered to mice. Chem. Pharm. Bull. (Tokyo) 35:2453-2458, 1987.					
4		I. Hishida, H. Nanba, and H. Kuroda, Antitumor activity exhibited by orally administered extract from fruit body of Grifola frondosa (maitake). Chem. Pharm. Bull. (Tokyo) 36:1819-1827, 1988.					
	5	H. Nanba and H. Kuroda, Potentiation of host-mediated antitumor activity by orally administered mushroom (Agaricus bispora) fruit bodies. Chem. Pharm. Bull. (Tokyo) 36:1437-1444, 1988.					
	6	T. Ohmori, K. Tamura, A. Wakaiki, G. Kawanishi, S. Tsuru, T. Yadomae, and K. Nomoto, Dissociation of a glucan fraction (CO-1) from protein-bound polysaccharide of Cordyceps phioglossoides and analysis of its antitumor effect. Chem. Pharm. Bull. (Tokyo) 36:4512-4518, 1988.					
	7	H. Hanaue, Y. Tokuda, T. Machimura, A. Kamijoh, Y. Kondo, K. Ogoshi, H. Makuuchi, H. Nakasaki, T. Tajima, and T. Mitomi, Effects of oral lentinan on T-cell subsets in peripheral venous blood. Clin. Ther. 11:614-622, 1989.					
	8	I. Suzuki, K. Hashimoto, N. Ohno, H. Tanaka, and T. Yadomae, Immunomodulation by orally administered ß-glucan in mice. Int. J. Immunopharmacol. 11:761-769, 1989.					
	9	I. Suzuki, T. Sakurai, K. Hashimoto, S. Oikawa, A. Masuda, M. Ohsawa, and T. Yadomae, Inhibition of experimental pulmonary metastasis of Lewis lung carcinoma by orally administered ß-glucan in mice. Chem. Pharm. Bull. (Tokyo) 39:1606-1608, 1991.					
T. Sakurai, K. Hashlmoto, I. Suzuki, N. Ohno, S. Oikawa, A. Masuda, and T. Yadomae. Enhancement of murine alveolar macrophage functions by orally administered ß-glucan. Int. J. Immunopharmacol. 14:821-830, 1992.							

Examiner	6 1	$\alpha \propto \infty \alpha \alpha$	Date	1. 20 1
Signature	Elex-	S OWEN	Considered	117/19/26
*EYAMINED: In	itial if safarance annuld	A substitution of the state of		10 / 1 // 00

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

considered, include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of Information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

PTO/SB/08B (04-03)
Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Tredemark Office; U.S. DEPARTMENT OF COMMERCE

	der the Paperwork Red te for form 1449/PTO	uction A	ct of 1995, no persons ar	re required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known			
300300	10 101101111 1443/710			Application Number	10/621,027	``	
INF	ORMATION	DIS	CLOSURE	Filing Date	July 16, 2003		
STA	TEMENT E	BY A	PPLICANT	First Named Inventor	Nai-Kong CHEUNG		
	(Use as many she	oto oc		Art Unit			
	(Ose as many site	GIS 43 /	recessary)	Examiner Name	·		
Sheet	2	of	2	Attorney Docket Number	639-B-PCT-US		

		NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					
ESO 11		K. Hayakawa, N. Mitsuhashi, Y. Saito, M. Takahashi, S. Katano, K. Shiojima, M. Furuta, and H. Niibe, Effect of krestin (PSK) as adjuvant treatment on the prognosis after radical radiotherapy in patients with non-small cell lung cancer. Anticancer Res. 13:1815-1820,1993.					
	H. Hotta, K. Hagiwara, K. Tabata, W. Ito, and M. Homma, Augmentation of protective immune responses against Sendai virus infection by fungal polysaccharide schizophyllan. Int. J. Immunopharmacol. 15:55-60, 1993.						
	13	H. Morinaga, K. Tazawa, H. Tagoh, A. Muraguchi, and M. Fujimaki, An in vivo study of hepatic and splenic interleukin-1ß mRNA expression following oral PSK or LEM administration. Gann 85:1298-1303, 1984.					
Y. Iino, T. Yokoe, M. Maemura, J. Horiguchi, H. Takei, S. Ohwada, and Y. Morishita, Immunochemotherapies versus chemotherapy as adjuvant treatment after curative resection operable breast cancer. Anticancer Res. 15:2907-2911, 1995.		Y. lino, T. Yokoe, M. Maemura, J. Horiguchi, H. Takei, S. Ohwada, and Y. Morishita, Immunochemotherapies versus chemotherapy as adjuvant treatment after curative resection of operable breast cancer. Anticancer Res. 15:2907-2911, 1995.					
	15	H. Nanba, Activity of maitake D-fraction to inhibit carcinogenesis and metastasis. Ann. N. Y. Acad. Sci. 768:243-245, 1995.					
	16	V. Vetvicka, et al., Soluble &-Glucan Polysaccharide Binding to the Lectin Site of Neutrophil or Natural Killer Cell Complement Receptor Type2 (CD11b/CD18) Generates a Primed State of the Receptor Capable of Mediating Cytotoxicity of iC3b-Opsonized Target Cells. J. Clin.					
		Invest., 98:50-61, 1996.					
	17	J. Yan, et al., ß-Glucan, a "Specific" Biologic Response Modifier That Uses Antibodies to Target Tumors for Cytotoxic Recognition by Leukocyte Complement Receptor Type 3 (CD11b/CD18)1. J. Immunology,163:3045-3052, 1999.					
	18	Y. Xia, V. Vetvicka, J. Yan, M. Hanikyrova, T. Mayada and G.D. Ross, The &-Glucan-Binding Lectin Site of Mouse CR3 (CD11b/CD18) and Its Function in Generating a Primed State of the Receptor That Mediates Cytotoxic Activation in Response to iC3b-Opsonized Target Cells1. J.					
1		Immunology, 162:2281-2290, 1999					

		/		
Examiner	6.1	$\Delta U \Delta M = 7$	Date	12/0/00
Signature	ous.	Gran V	Considered	1 12/19/06

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting it the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: